**Commonwealth of Kentucky**
**Division for Air Quality**

# *PERMIT STATEMENT OF BASIS*

REVISED DRAFT
Title V Renewal Construction / Operating Permit
Permit: V-05-043 Revision 1
Kentucky Utilities Company - Ghent Station
Ghent, KY 41045
December 22, 2006
Timothy J. Rust, Reviewer

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|---|---|
| SOURCE ID: | 21-041-00010 |
| SOURCE A.I. #: | 704 |
| ACTIVITY ID: | APE20040002 |

**Current Permitting Action: Significant Revision V-05-043 Revision 1**

Kentucky Utilities (KU) was issued a draft Title V renewal permit on August 30, 2006 for their Ghent Electrical Generating Station. Comments were received from KU on September 28, 2006 that were numerous and in part requested that the Division revise a portion of the reporting requirements to standardized language recently developed by the Division for power plant permits in general. Additionally, KU cited several instances where the draft permit listed several CAM requirements that were inconsistent with the CAM Plan filed with the original application. The Division's Response to KU's comments is listed in Attachment A to this Statement of Basis. The Division has determined that the original CAM Plan did not provide for the use of a PM-CEMS or account for the different plant stack configurations that will result from the proposed construction of the wet flue gas desulfurization units (WFGD's). On December 11, 2006, KU submitted a revised CAM plan to account for these differences and describes monitoring provisions for interim periods. As a result of this revised CAM document and the comments submitted, significant revisions to the monitoring, recordkeeping and reporting of the draft permit were required. The Division is issuing this permit as Revision 1 to the original Draft permit V-05-043 and affording the public the opportunity to review this draft pursuant to 401 KAR 50:020 Sections 16 and 25 that include:

● Elimination of the Section H – Alternative Operating Scenario; this section originally was included to account for the various operating scenarios that will result from the ongoing construction of the WFGD's. Upon review, it was decided that this section did not actually present operating scenarios but rather listed changes to monitoring and reporting requirements. These changes have now been more clearly stated in Section B on a unit specific basis referencing the revised CAM.

● Incorporation of the Division's standardized language for power plants; this language works well with the monitoring approach proposed by the revised CAM and allows for consistent application and compliance with the permit conditions not just across each unit, but from plant to plant for KU.

●Consolidation of the Material Handling Emission Units on the basis of applicable regulation; the Emission Units for Coal, Limestone, and Gypsum material handling have nearly identical permit conditions when the same regulation is applied. Grouping these units has eliminated unnecessary redundancy, cleared up questions surrounding applicable standards, and aligned the permit more closely with the revised CAM, making the permit easier for compliance and enforcement from a practical matter.

**Past Permitting Action: Title V Renewal Permit V-05-043**

DAQ received on June 8, 2004, a Title V air quality permit renewal application for Kentucky Utilities Company – Ghent Generating Station. A nitrogen oxides ($NO_x$) Budget Permit application was sent on October 30, 2001. The new Title V permit will include a renewal of the Phase II Acid Rain Permit and the $NO_x$ Budget Permit. Permit application for minor revisions were also received at several dates. Summaries of the minor revisions are as follows:

| Document Name | Date Received | Minor Modification Summary |
|---|---|---|
| Initial Title V Operating Permit Application | 12/16/1996 | |
| KU – Ghent Generating Station Insignificant Activity/Revision | 6/04/2002 | 1) Inclusion of a gypsum storage pile considered Insignificant Activity. |
| KU – Ghent Generating Station Pilot Demonstration Plant | 8/07/2002 | 2) Installation of a propane heater rated at less than 1 mmBtu/hr, considered Insignificant Activity. The heater was associated with an air pollution control project. |
| KU – Ghent Generating Station Title V Permit Application Renewal | 6/08/2004 | 3) Emission Unit 20: (Dry Fly Ash Handling) has been removed from Ghent property. |
| KU - Ghent Generating Station Title V Permit #V-97-025/FGDs | 1/14/2005 | 4) Three new wet flue gas desulfurization units will be installed on Emission Units 2, 3, and 4,<br>5) Installation of two new stacks and/or modification of existing stacks,<br>6) Installation of additional limestone handling and preparation equipment,<br>7) Installation of additional gypsum handling equipment,<br>8) Additional facility upgrades and possible relocation of Unit 2 cooling tower. |

The Title V application was deemed complete on January 7, 2005.

The source is an electric power generating station consisting of four (4) pulverized coal-fired, dry bottom boilers. The boilers have an input capacity of 5500 mmBtu each. Units 1 and 2 are tangentially-fired, while Units 3 and 4 are wall-fired. All units are equipped with electrostatic precipitators (ESPs) and low nitrogen oxide ($NO_x$) burners. Unit 1 exhausts to a wet flue gas desulfurization (WFGD) scrubber to meet the applicable sulfur dioxide ($SO_2$) emission limitation. WFGDs will be installed on Units 2, 3, and 4 during 2005-2010 and will be utilized on an as-needed basis to meet the applicable $SO_2$ emission limits for those units.

The source is classified as a Title V major source of air emissions based on the potential to emit more than 100 tons per year (tpy) of particulate matter less than 10 microns ($PM_{10}$), carbon monoxide (CO), nitrogen oxides ($NO_x$), sulfur dioxide ($SO_2$), and volatile organic compounds (VOC). The facility is also a Title V major source of air emissions of hazardous air pollutants (HAPs), since potential HAP emissions are greater than 10 tpy for a single HAP and greater than 25 tpy for all HAPs combined. There are no significant modifications to the facility for the Title V renewal.

The following is a list of significant emission units:

E. Unit 01: Point 03 (will change to Point 25 with conclusion of WFGD project): Pulverized coal-fired, dry bottom, tangentially-fired unit equipped with an electrostatic precipitator (ESP), wet limestone forced-oxidation sulfur dioxide scrubber, low $NO_x$ burners and selective catalytic reduction (SCR). Construction commenced prior to August 17, 1971.

E. Unit 02: Point 01 (will change to Point 03 with conclusion of WFGD project): Pulverized coal-fired, dry bottom, tangentially-fired unit equipped with electrostatic precipitator (ESP), and low $NO_x$ burners. Construction commenced prior to September 18, 1978. A wet limestone forced-oxidation sulfur dioxide scrubber is proposed to be installed between 2005 and 2010.

E. Unit 03: Point 02 (will change to Point 03 with conclusion of WFGD project): Pulverized coal-fired, dry bottom, wall-fired unit equipped with an electrostatic precipitator (ESP), low $NO_x$ burners with overfire air, and selective catalytic reduction (SCR). Construction commenced prior to September 18, 1978. A wet limestone forced-oxidation sulfur dioxide scrubber is proposed to be installed between 2005 and 2010.

E. Unit 04: Point 02 (will change to Point 26 with conclusion of WFGD project): Pulverized coal-fired, dry bottom, wall-fired unit equipped with an electrostatic precipitator (ESP), low $NO_x$ burners with overfire air, and selective catalytic reduction (SCR). Construction commenced prior to September 18, 1978. A wet limestone forced-oxidation sulfur dioxide scrubber is proposed to be installed between 2005 and 2010.

E. Unit 05-01: Point 06: Coal handling operations include barge unloading operations equipped with enclosure. Construction commenced by November 15, 1973. (Barge unloader is not defined as an affected facility under 40 CFR 60 Subpart Y and operating permit for this unit issued November 15, 1973.)

E. Unit 05-02: Point 10: Limestone barge unloading operations equipped with enclosure. Construction commenced by 1992. (The barge unloader does not meet the definition of an affected facility under 40 CFR 60 Subpart OOO.) The unloading by barge occurs at unit 5 for either coal or limestone.

E. Unit 06: Point 09: Coal crushing operations includes Crusher House #1 and three surge bins; equipped with enclosure and a baghouse. Construction commenced before October 24, 1974.

E. Unit 07: Point 08: Coal handling operations includes conveying and stockpile operations, includes conveyors 1D, 1E, 1F, 1J, 1G, 1H, and transfer points, and two stockpiles; equipped with enclosure, surfactant, and wet suppression. Construction commenced before October 24, 1974.

E. Unit 08-01: Point 07: Coal conveying and handling operations include conveyors 1A, 1B, 1C, and transfer points; equipped with enclosure. Construction commenced before October 24, 1974.

E. Unit 08-02: Point 011: Limestone handling and processing operations includes conveyors 1A, 1B, 1C, and transfer points; equipped with fabric filter. Construction commenced 1992.

E. Unit 09-01: Point 07: Coal conveying and handling operations include conveyor 2H and transfer points; equipped with enclosure. Construction commenced by 1992.

E. Unit 09-02: Point 011: Limestone handling and processing includes conveyor 2H and transfer points; equipped with fabric filter. Construction commenced by 1992.

E. Unit 10-01: Point 07: Coal conveying and handling operations include conveyor 6H and transfer points; equipped with enclosure. Construction commenced by 1992.

E. Unit 10-02: Point 011: Limestone handling and processing includes conveyor 6H and transfer points; equipped with fabric filter. Construction commenced by 1992.

E. Unit 11: Point 09: Coal handling and conveying includes crusher house #2, conveyors 2J, 3J, 4J, 3M, 4M, 2G, 5G, 6G, 7G, 8G, 3H, 4H, 5H, coal silo, 3G, 4G, and transfer points; equipped with enclosure. Construction commenced by 1985.

E. Unit 12: Point 011: Limestone handling and processing includes conveyor BF1 and transfer points; equipped with fabric filter. Construction commenced by 1992.

E. Unit 13: Point 014: Limestone crushing and processing includes hammermill crushing operation (one crusher); equipped with a fabric filter. Construction commenced by 1992.

E. Unit 14: Point 011: Limestone handling and conveying, conveyor L1, and transfer points; equipped with a fabric filter. Construction commenced by 1992.

E. Unit 15: Point 013: Limestone handling day silo, includes limestone day silo receiving and processing; equipped with fabric filter. Construction commenced by 1992.

E. Unit 16: Point 015: Limestone secondary crushing operations, includes two ball mills for secondary crushing; equipped with enclosure. Construction commenced by 1992.

E. Unit 17: Point 012: Limestone handling stockpile operations including one stockpile; equipped with wet suppression system. Construction commenced by 1992. (The open stockpile does not meet the definition of an affected facility under 40 CFR 60 Subpart OOO because it is an open storage pile.)

E. Unit 20: Unit 20: *REMOVED 2004*

E. Unit 22: No Point ID: Two cooling towers. Construction commenced prior to 1992.

E. Unit 25: Point 016: Limestone handling and receiving includes barge unloading operations.

E. Unit 26: Point 017: Limestone handling and conveying includes conveyers LS1, LS2, and transfer points.

E. Unit 27: Point 018: Limestone storage pile LSP1.

E. Unit 28: Point 017: Limestone handling and conveying includes conveyer LS3, LS4, and transfer points.

E. Unit 29: Point 019: Limestone handling and processing includes wet limestone sizing screen #1and #2, limestone mill #1 and #2, and transfer points.

E. Unit 30: Point 020: Limestone handling and processing includes wet limestone crusher #1 and #2.

E. Unit 31: Point 021: Gypsum handling and processing includes gypsum conveyer #1 and #2, and transfer points.

E. Unit 32: Point 022: Gypsum storage pile GSP1.

E. Unit 33: Point 023: Gypsum handling and conveying includes gypsum conveyer #3, #4, #5, and transfer points.

**COMMENTS:**

E. Unit 01 Unit 1, Coal-Fired Indirect Heat Exchanger, 5500 mmBtu/hr

This unit is a coal-fired boiler installed in 1970, with a maximum heat input capacity of 5500 million British thermal units per hour (mmBtu/hr). The secondary fuel for the boiler is No. 2 fuel oil. No modifications have been made to Unit 1 since the original Title V permit, V-97-025.
The following regulations are applicable to this unit:

401 KAR 61:015 Existing indirect heat exchangers, applicable to an emission unit with a capacity of more than 250 mmBtu/hr and commenced before August 17, 1971;

Regulation No. 7 Kentucky Air Pollution Control Commission Prevention and Control of Emissions of Particulate Matter from Combustion of Fuel in Indirect Heat Exchangers;

40 CFR Part 75 Continuous Emissions Monitoring (CEMS)

40 CFR Part 64 Compliance Assurance Monitoring (CAM)

401 KAR 52:060, Acid Rain Permits, applies to Unit 1 for the prevention, abatement, and control of air pollution incorporating by reference 40 CFR Parts 72 to 78. The $NO_x$ limit and averaging plans are set by 40 CFR 75 and 76. The unit does have $SO_2$ allowances as listed in 40 CFR 73.10 for each year from 2000 through 2009. Unit 1 has 12,248 Phase II allowance allocations set by 40 CFR Part 73.

401 KAR 51:160, $NO_x$ requirements for large utility and industrial boilers, and 40 CFR 97, Subpart C, applies to Unit 1. The $NO_x$ Budget Permit application for this unit was sent on October 30, 2001. Requirements contained in that application were incorporated into and made part of the $NO_x$ Budget Permit. Pursuant to 401 KAR 52:020, Section 3, the source shall operate in compliance with those requirements.

Pursuant to 401 KAR 61:015 Section 5(1), the $SO_2$ emission limit for this source is 5.67 lb/mmBtu based on a twenty-four hour average. Compliance with the $SO_2$ allowable standard shall be determined from the continuous emissions monitor (CEM).

Pursuant to 401 KAR 61:015 Section 4(4) and Regulation No. 7, the unit shall have emissions of particulate matter (PM) <= 0.2 lb/mmBtu actual heat input based upon a 3-hour average. Pursuant to 401 KAR 61:015 Section 4(4) and Regulation No. 7, the unit shall have visible emissions <= 40 percent opacity, based upon a six-minute average, except that a maximum of sixty (60) percent opacity is allowed for a period or aggregate of periods no more than six minutes in any sixty minutes during building a new fire, cleaning the fire box, or blowing soot.

Due to wet stack conditions during operation of the wet scrubber system, representative continuous opacity monitor (COM) data cannot be obtained. As a Phase 1 Extension Control Unit (a unit with a wet flue gas control system), 40 CFR 75.14(b) has exempted the unit from the opacity monitoring requirements. To provide assurance of compliance with the applicable PM and opacity limitations, the permittee has proposed to install and operate a Particulate Matter Continuous Emissions Monitoring System (PM-CEMS). The PM-CEMS must be installed and operated in accordance with the requirements of Performance Specification 11 of 40 CFR 60, Appendix B and Procedure 2 of 40 CFR 60, Appendix F, no later than one year after permit issuance.

Before the PM-CEMS is installed and operational, compliance with the allowable limits for PM and opacity shall be determined from Method 9 readings. When the unit is in operation, the permittee shall read, weather permitting, the opacity of emissions from the exhaust stack using Reference Method 9 once per daylight shift.

Pursuant to 40 CFR 64, the unit is subject to the Compliance Assurance Monitoring (CAM). The permittee shall use Sulfur Dioxide ($SO_2$) and Nitrogen Oxides ($NO_x$) Continuous Emissions Monitors (CEMs) as continuous compliance determination methods consistent with 40 CFR 64.4 (d) for those specific parameters. Once the PM-CEMS is installed and operated in accordance with the applicable performance specifications, the permittee shall use the PM-CEMS as a continuous compliance determination method consistent with 40 CFR 64.4 (d) for $PM_{10}$. Before the PM-CEMS is installed and operational, the permittee shall implement one of the following options for compliance assurance monitoring for $PM_{10}$.

(1) Conduct emissions testing sufficient to develop a correlation between $PM/PM_{10}$ emissions and ESP operating parameters, establish appropriate indicator ranges, and continuously monitor those parameters; the permittee must submit a written test protocol at least 60 days in advance of the testing to the Division for approval.
(2) Establish compliance with the PM limit at 40 % opacity through emissions testing, and conduct daily Method 9 readings.

This unit is also subject to EPA's Clean Air Interstate Rule (CAIR) and Clean Air Mercury Rule (CAMR). The CAIR was promulgated by EPA on March 15, 2005 to reduce emissions of $SO_2$ and NOx from utility boilers located in the Eastern United States. This rule provides for a cap and trade approach to reduce emission of these pollutants through amendments to 40 CFR Parts 51, 72, 73, 74, 77, 78, and 96. Kentucky's State Implementation Plan (SIP) incorporating these provisions is due in 2006, with Phase 1 caps currently being proposed to be effective in 2009 for NOx and 2010 for $SO_2$.

The CAMR, also promulgated by EPA on March 15, 2005, establishes standards of performance limiting mercury emissions from new and existing coal-fired power plants and creates a market-based cap-and-trade program to reduce utility emissions of mercury in two separate phases. This unit is subject to CAMR as an existing unit that commenced construction or reconstruction before January 30, 2004. In accordance with 40 CFR 60.24 and Section 111(d) of the Clean Air Act, this unit will be regulated in accordance with Kentucky's State Plan under 40 CFR 60.24(h)(1), which must be submitted to the Administrator no later than November 17, 2006.

E. Unit 02 Unit 2 Coal-Fired Indirect Heat Exchanger
E. Unit 03 Unit 3 Coal-Fired Indirect Heat Exchanger
E. Unit 04 Unit 4 Coal-Fired Indirect Heat Exchanger

These units are coal-fired boilers, each with a maximum heat input capacity of 5,500 mmBtu/hr. The secondary fuel for each of the boilers is No. 2 fuel oil. Unit 2 was installed in 1973, while Units 3 and 4 were installed in 1977. No major modifications have been made to Units 2, 3, or 4 since the original Title V permit, V-97-025.

The following regulations are applicable to this unit:

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|---|---|
| 401 KAR 59:015 | New Indirect Heat Exchangers |
| 401 KAR 60:005 | incorporating by reference 40 CFR 60 Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generating Units applicable to an emission unit with a capacity of more than 250 mmBtu/hr and commenced after August 17, 1971; |
| 40 CFR Part 75 | Continuous Emissions Monitoring (CEMS) |
| 40 CFR Part 64 | Compliance Assurance Monitoring (CAM) |
| 401 KAR 52:060, | Acid Rain Permits, applies to Units 2, 3, and 4 for the prevention, abatement, and control of air pollution and incorporating by reference 40 CFR Parts 72 to 78. The $NO_x$ limit and averaging plans are set by 40 CFR 75 and 76. The unit has $SO_2$ allowances as listed in 40 CFR 73.10 for each year from 2000 through 2009. Unit 2 has 12,734 Phase II allowance allocations set by 40 CFR Part 73, Unit 3 has 13,956 Phase II allowance allocations set by 40 CFR Part 73, and Unit 4 has 13,713 Phase II allowance allocations set by 40 CFR Part 73. |

401 KAR 51:160, $NO_x$ requirements for large utility and industrial boilers, and 40 CFR 97, Subpart C, applies to Units 2, 3, and 4. The $NO_x$ Budget Permit application for these units was sent on October 30, 2001. Requirements contained in that application were incorporated into and made part of the $NO_x$ Budget Permit. Pursuant to 401 KAR 52:020, Section 3, the source shall operate in compliance with those requirements.

Pursuant to 401 KAR 59:015 Section 5(1)(b), the $SO_2$ emission limit for each of these units is 1.2 lb/mmBtu based on a three hour average. Pursuant to 401 KAR 59:015, Section 6(1)(c), $NO_x$ emissions for each of these units expressed as nitrogen dioxide shall not exceed 0.7 lb/mmBtu based on a three hour average. Compliance with the $SO_2$ and $NO_x$ allowable standards for these units shall be determined from the CEMs.

Pursuant to 401 KAR 59:015 Section 4(1)(b), each of the units shall have emissions of PM <= 0.1 lb/mmBtu actual heat input based upon a 3-hour average. Compliance with the PM allowable limit shall be determined from the COMs. The permittee may assure continuing compliance with the PM standard by operating the affected facility and associated control equipment such that the opacity does not exceed the upper limit of the indicator range developed from COM data.

Pursuant to 401 KAR 59:015 Section 4(2), the units shall have visible emissions <= 20 percent opacity, based upon a six-minute average, except that a maximum of twenty-seven (27) percent opacity is allowed for not more than one six minute period in any sixty consecutive minutes. Compliance with the opacity limit for these units shall be determined from the COMs.

Pursuant to 40 CFR 64, the units are subject to the Compliance Assurance Monitoring (CAM) provisions. The permittee shall use Sulfur Dioxide ($SO_2$) and Nitrogen Oxides ($NO_x$) CEMs as continuous compliance determination methods consistent with 40 CFR 64.4 (d) for those specific parameters (this does not apply to $SO_2$ emissions until operation of the proposed WFGDs on each unit commences).

At such time when the proposed WFGDs are installed on each of these three units, representative COM data will no longer be available due to the presence of condensed water vapor in the flue gas exhaust stream. To provide assurance of compliance for the applicable limitations for PM and opacity, the permittee must install and operate a PM-CEMS meeting requirements of Performance Specification 11 of 40 CFR 60, Appendix B and Procedure 2 of 40 CFR 60, Appendix F. The PM-CEMS must be installed on each unit *before* cessation of COM data acquisition as the compliance assurance method for PM and opacity pending US EPA approval for alternative monitoring. The requirements applicable to these three units regarding the use of PM-CEMS for assurance of compliance with PM and opacity limits is listed as an Alternate Operating Scenario in Section F of the permit. Once a PM-CEMS is operational for a particular unit in accordance with the relevant performance specifications, the permittee shall use the PM-CEMS as a continuous compliance determination method consistent with 40 CFR 64.4 (d) for $PM_{10}$.

These units are also subject to EPA's Clean Air Interstate Rule (CAIR) and Clean Air Mercury Rule (CAMR). The CAIR was promulgated by EPA on March 15, 2005 to reduce emissions of $SO_2$ and NOx from utility boilers located in the Eastern United States. This rule provides for a cap and trade approach to reduce emission of these pollutants through amendments to 40 CFR Parts 51, 72, 73, 74, 77, 78, and 96. Kentucky's State Implementation Plan (SIP) incorporating these provisions is due in 2006, with Phase 1 caps currently being proposed to be effective in 2009 for NOx and 2010 for $SO_2$.

The CAMR, also promulgated by EPA on March 15, 2005, establishes standards of performance limiting mercury emissions from new and existing coal-fired power plants and creates a market-based cap-and-trade program to reduce utility emissions of mercury in two separate phases. These units are subject to CAMR as existing units that commenced construction or reconstruction before January 30, 2004. In accordance with 40 CFR 60.24 and Section 111(d) of the Clean Air Act, these units will be regulated in accordance with Kentucky's State Plan under 40 CFR 60.24(h)(1), which must be submitted to the Administrator no later than November 17, 2006.

E. Unit 05-01 Coal Receiving Operations
E. Unit 05-02 Limestone Handling and Receiving
E. Unit 07 Coal Handling Operations (stockpile and conveying operations)
E. Unit 08-01 Coal Conveying and Handling Operations
E. Unit 17 Limestone Handling Stockpile Operations
E. Unit 22 Cooling Towers
E. Unit 25 Limestone Handling and Receiving
E. Unit 27 Limestone Handling Stockpile Operations
E. Unit 32 Gypsum Handling Stockpile Operations

Emission Units 25, 27, and 32 are proposed for construction for upgraded material handling associated with the installation of the new wet limestone flue gas desulfurization units to be completed during the time period of 2005-2010.

The following regulation is applicable to these units:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

Pursuant to 401 KAR 63:010 Section 3, no person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate. In addition, reasonable precautions shall be taken to prevent PM from becoming airborne. The precautions shall include, but not be limited to, with wet suppression and/or enclosures so as to comply with the standards specified in Section 3 of 401 KAR 63:010, Fugitive emissions. Compliance is demonstrated when no visible fugitive dust emissions extending beyond the property line and that the processes and controls are operating normally. Observations and records, if applicable, shall be utilized to document compliance.

Visual observations shall be made on a daily weekday (Monday thru Friday) basis, of all operations and control equipment to ensure the control equipment is functioning while the associated equipment is in operation and to determine if any fugitive air emissions are being generated in such a manner as to cause a nuisance or to cross the property line. The permittee shall maintain records of the amount of coal received, limestone received, and gypsum processed (tonnages) through each piece of conveying or handling equipment, including stockpiles, on a monthly basis.

E. Unit 06 Coal Crushing Operations

The following regulations are applicable to this unit:

401 KAR 61:020 Existing Process Operations

40 CFR Part 64 Compliance Assurance Monitoring (for $PM_{10}$)

Pursuant to 401 KAR 61:020 Section 3(2), PM emissions into the open air shall not exceed $[55(P)^{0.11} - 40]$ pounds per hour based on a three-hour average, where P is the hourly operating rate in tons per hour. 401 KAR 61:020 Section 3(1)(a) specifies any continuous emissions into the open air shall not exceed forty (40) percent opacity based upon a six minute average.

The three-hour averaging time associated with the PM standard is applicable during compliance demonstration through performance testing if a test is required by the Division. For these units the permittee may assure compliance with the particulate mass and opacity standards by assuring proper operation of the control device(s). Proper operation of the control device(s) can be assured by requiring the permittee to conduct daily (weekday) qualitative observations of stack emissions and maintain log of the observations. If visible emissions from any stack are seen, the permittee shall determine opacity of emissions by Reference Method 9 and initiate an inspection of the control equipment for any necessary repairs. Coal throughput for these units is required to be monitored on a monthly basis.

E. Unit 09-01 Coal Conveying and Handling Operations
E. Unit 10-01 Coal Handling and Conveying
E. Unit 11 Coal Handling and Conveying

The following regulation is applicable to these three emission units:

401 KAR 60:005 incorporating by reference 40 CFR 60, Subpart Y, New Standards of Performance for Coal Preparation Plants.

40 CFR Part 64 Compliance Assurance Monitoring (for $PM_{10}$).

Pursuant to 40 CFR 60.252, opacity of visible emissions from any coal processing and conveying equipment, coal storage system, or transfer and loading system processing coal shall not equal or exceed 20 percent. For these units, compliance with the visible emissions standard is assured by requiring the permittee to conduct weekly qualitative visual observations (daily weekday observations for Unit 11 for CAM) of stack emissions to determine whether any observed emissions appear normal or abnormal. If visible emissions from any stack during visual observations are observed to be abnormal, the permittee shall determine opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for any necessary repairs. Coal throughput is required to be monitored on a monthly basis for the coal handling and conveying equipment.

E. Unit 08-02, E. Unit 09-02, E. Unit 10-02, E. Unit 12, E. Unit 13, E. Unit 14
Limestone Handling, Crushing and Processing Emission Units

The following regulations are applicable to these emission units:

401 KAR 60:670 incorporating by reference 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants.

40 CFR Part 64 Compliance Assurance Monitoring (for $PM_{10}$).

Pursuant to 40 CFR 60.672(a), particulate emissions shall not exceed 0.05 g/dscm or exhibit greater than seven (7) percent opacity. Compliance with these limits is assured by requiring the permittee to conduct daily (weekday) qualitative visual observations of stack emissions and maintain log of observations. If visible emissions from any stack are seen the permittee shall determine opacity of emissions by Reference Method 9 and initiate an inspection of the control equipment for

any necessary repairs. A one-time demonstration of compliance with the applicable PM limitations is also required. For this demonstration, EPA Method 5 or EPA Method 17 testing is required at each stack location exhausting sources subject to the CAM provisions. The permittee is required to monitor limestone throughput on a monthly basis.

E. Unit 15 Limestone Handling Day Silo
E. Unit 16 Limestone Secondary Crushing Operations
E. Unit 26 Limestone Handling and Processing
E. Unit 28 Limestone Handling and Processing
E. Unit 29 Limestone Handling and Processing
E. Unit 30 Limestone Handling and Processing
E. Unit 31 Gypsum Handling and Processing
E. Unit 33 Gypsum Handling and Processing

Emission Units 26, 28, 29, 30, 31, and 33 are proposed for construction for upgraded material handling associated with the installation of the new wet limestone flue gas desulfurization units to be completed during the time period of 2005-2010.

The following regulation is applicable to these emission units:

401 KAR 60:670 incorporating by reference 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants

Pursuant to 40 CFR 60 Subpart OOO, opacity of visible emissions shall not exceed the applicable limits listed therein. Compliance with the applicable limits is assured by requiring the permittee to conduct weekly qualitative visual observations of stack emissions to determine whether any observed emissions appear normal or abnormal. If visible emissions from any stack during visual observations are observed to be abnormal, the permittee shall determine opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for any necessary repairs. The permittee is required to monitor material throughput on a monthly basis.

**Regulations not applicable:**

Regulations not applicable to Unit 1 due to applicability date or size of unit:

401 KAR 59:015, New Indirect Heat Exchangers

401 KAR 60:005 Section 3(b), incorporating by reference 40 CFR 60, Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971

401 KAR 59:016, New Electric Utility Steam Generating Units

401 KAR 60:005 Section 3(c), incorporating by reference 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978

401 KAR 60:005 Section 3(d), incorporating by reference 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

401 KAR 60:005 Section 3(e), incorporating by reference 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

Regulations not applicable to Units 2, 3, and 4 due to applicability date or size of unit:

401 KAR 59:016, New Electric Utility Steam Generating Units

401 KAR 60:005 Section 3(c), incorporating by reference 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978

401 KAR 60:005 Section 3(d), incorporating by reference 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

401 KAR 60:005 Section 3(e), incorporating by reference 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

Regulation not applicable to Unit 05-01 (Coal receiving operations) due to definition of affected facility and applicability date:

401 KAR 60:005 Section 3(1)(FF), Standards of performance for coal preparation plants, incorporated by reference 40 CFR 60.250, Subpart Y. Barge unloading operations, by definition, do not convey coal or remove coal from machinery to reduce the size of coal or separate coal from refuse. These do not meet definition of coal storage system under Subpart Y.

Regulation not applicable to Unit 05-02 (Limestone handling and receiving), barge unloading operations for limestone, due to definition of affected facility:

401 KAR 60:670 Section 4(1), Standards of performance for nonmetallic mineral processing plants incorporating by reference 40 CFR 60, Subpart OOO. The barge unloader does not meet the definition of an affected facility.

Regulations not applicable to Unit 06 (Coal crushing operations crusher #1) or Unit 07 (Coal handling stockpile and conveying) or Unit 08-01 (Coal conveying and handling, conveyors 1A, 1B, 1C and transfer points) due to applicability date:

401 KAR 60:005 Section 3(1)(FF), Standards of performance for coal preparation plants, incorporated by reference 40 CFR 60, Subpart Y. These facilities commenced construction before October 24, 1974.

Regulations not applicable to Units 17 (Limestone handling stockpile operations) due to definition of an affected facility:

401 KAR 60:670 Section 4(1), Standards of performance for nonmetallic mineral processing plants incorporating by reference 40 CFR 60, Subpart OOO. The open stockpile operations do not meet the definition of an affected facility.

Regulations not applicable to Unit 25: Limestone handling and receiving (includes barge unloading) due to definition of an affected facility:

401 KAR 60:670 Section 4(1), Standards of performance for nonmetallic mineral processing plants incorporating by reference 40 CFR 60, Subpart OOO. The barge unloader does not meet the definition of an affected facility.

Regulations not applicable to Unit 27: Limestone storage pile LSP1 due to definition of an affected facility:

401 KAR 60:670 Section 4(1), Standards of performance for nonmetallic mineral processing plants incorporating by reference 40 CFR 60, Subpart OOO. The open stockpile operations do not meet the definition of an affected facility.

Regulations not applicable to Unit 32: Gypsum storage pile GSP1 due to definition of an affected facility:

401 KAR 60:670 Section 4(1), Standards of performance for nonmetallic mineral processing plants incorporating by reference 40 CFR 60, Subpart OOO. The open stockpile operations do not meet the definition of an affected facility.

**CREDIBLE EVIDENCE:**

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.

# ATTACHMENT A

## Response to Comments

Comments on the Draft Title V Air Quality Permit (V05-043) for Kentucky Utilities Company's (KU's), Ghent Generating Station submitted by Marlene Zeckner Pardee, Senior Environmental Scientist on September 28, 2006.

**Permit Statement of Basis**

1. Page 4, E. Unit 26 – Change LS1 and LS2 to L2 and L3.

*Division's Response: Comment acknowledged, change made.*

2 Page 4, E. Unit 28 – Change LS3 and LS4 to L4-L7.

*Division's Response: Comment acknowledged, change made.*

3. Page 7, First Paragraph – Change last sentence to read as "No **major modifications** have been made to Units 2, 3, or 4 since the original Title V permit, V-97-025." Minor permit changes, as noted on page 3 of the Permit Application Summary Form, have been made.

*Division's Response: Comment acknowledged, change made.*

4. Page 7, Last Paragraph - There appears to be a typo. The $SO_2$ emission limit is 1.2 lb/mmBtu based on a 3-hr average, not a 24-hr average.

*Division's Response: Comment acknowledged, change made.*

5. Page 8, fourth paragraph, third sentence – KU requests the removal of the phrase "*before* cessation of COM data acquisition". When the WFGDs are installed on Unit 2, Unit 3 and Unit 4, there will be a unit outage to "tie-in" the new WFGD. COM readings will cease at the beginning of the outage and PM-CEMS readings will begin after the outage because the WFGD will be in use. Ductwork re-configurations and in some cases installation of new stacks will preclude the installation and use of PM-CEMS before the WFGD tie-in outage.

*Division's Response: Removal of the COM after the installation and operation of the WFGD and a waiver to not reinstall it for Units 2, 3, and 4 must have US EPA approval for alternative monitoring. The Statement of Basis and Permit has been changed to reflect this.*

6. Page 9, Last Paragraph Prior to E. Unit 06 - The emission units listed in this section have no specific monitoring requirements listed in the permit. Section F does not mention applicable monitoring requirements. KU suggests deleting the first sentence: "Visible emission from each piece of equipment…or abnormal" and adding limestone and gypsum after "coal" in the last sentence.

*Division's Response: This statement has been changed to the current permit terms and conditions.*

7. Page 11, First Paragraph, Second Sentence – KU is requesting that a Method 22, an alternative test method, as noted in 401 KAR 50.045, Section 3, be allowed to fulfill the Performance Testing Requirement.

*Division's Response: See the Draft Permit V-05-043Revision 1 for corrected test Reference Method applicability and citing.*

**Title V Permit**

1. Page 2, Unit 01/Emission Limits 2(a) – The particulate emission limit should be 0.20 lb/mmBtu as noted in Regulation No. 7, instead of 0.2 lb/mmBtu.

*Division's Response: Comment acknowledged, change made.*

2. Page 3, Unit 01/Testing Requirements 3(a) – KU's goal is to install the PM-CEMS in October of 2006. The current plans are to perform a performance/compliance stack test at the same time the PM-CEMS is tested/certified. If this is performed between October and the date that the permit is issued, would this stack test be acceptable as the first performance test for the renewal permit?

*Division's Response: The Division will accept the results of a successfully completed test to fulfill this requirement including those completed after the issuance of the first Draft permit V-05-043.*

3. Page 3, Unit 01/Testing Requirements 3(c) – There appears to be a typo. Condition 4.b.1 should be 4.b.iii.

   KU reads page 105, Section H, Specific Monitoring Requirements 4(b)(last sentence) as requiring an annual Method 9 after the PM-CEMS is installed. Does KDAQ concur? CAM, prior to the installation of the PM-CEMS, requires daily observations and Method 9's if triggered.

   KU suggests changing the language to: "The permittee shall determine the opacity of emissions from the stack by EPA Reference Method 9 monthly, prior to the installation of the PM-CEMS; annually, after the PM–CEMS is installed, or more frequently if requested by the Division.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

4. Page 3, Unit 01/Specific Monitoring Requirements 4(a)ii – KU is requesting that the verbiage "The permittee may use the certification from the fuel supplier to satisfy this requirement. The fuel supplier certification shall include the name of the coal supplier and a statement from the coal supplier that the coal complies with the specifications under the definition of coal specified in the regulation" be removed and replaced with the following: "The permittee may use fuel supplier data and/or testing data to satisfy this requirement." KU requires its fuel oil and coal suppliers to meet various guarantees which are stipulated in the contracts. KU samples and tests the coal to verify that the coal meets these guarantees. Each fuel oil delivery is not tested by the vendor and/or KU. Rather, the fuel oil is added to the fuel oil storage tank, mixed, and a weekly sample is collected which represents the fuel that is actually burned. 401 KAR 61:015 Section 6 (1) does not mention fuel supplier certifications; it simply states that the sulfur content shall be determined by method specified by the Cabinet. Is testing performed by KU an acceptable method to determine the sulfur content (coal, as delivered, and weekly fuel oil composites)?

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

5. Page 4, Unit 01/Specific Monitoring Requirements 4(a)iv – Typo? Should the regulation that is cited, 401 KAR 50:020, Section 10, be 401 KAR 61:005, Section 3 and/or 52:020, Section 10?

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

6. Page 4, Unit 01/Specific Monitoring Requirements 4(a)vi – KU is requesting clarification as to the frequency of the Method 9's for Unit 1, the last sentence "The permittee shall also determine the opacity of emissions from the stack by EPA Reference Method 9 weekly" seems to imply that weekly Method 9's are required for opacity before and after the PM-CEMS is installed. 4(b) iii notes daily and Section H indicates annually. KU is requesting annual Method 9's after the PM-CEMS is installed.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

7. Page 5, Unit 01/Specific Monitoring Requirements 4(b)(i) – KU is requesting that the verbiage "shall perform a stack test in the following calendar quarter…before conducting the test" be changed to "shall submit in the following calendar quarter a compliance test protocol as required by Section G(a) 17 of this permit. Testing shall be conducted as per the submitted protocol to demonstrate compliance with the particulate standard while operating at representative conditions."

401 KAR 50:045, Section 2, requires a source to submit a test protocol 60 days prior to the scheduled test date. If KU is required to complete the testing in the next calendar quarter, KU must, as an example for a first quarter exceedence, submit the test protocol by April 30 and complete the test on June 29 or 30. Considering the 60-day protocol review period by KDAQ, this only gives KU 30 days to review the quarterly data, prepare the test protocol, submit the protocol, and two (2) days at the end of the quarter to complete the testing. If the state has any issues with the test protocol such that a re-submittal is necessary, the testing could not be completed in the "following" quarter.

Please also note that there is no (a)(21) in Section G.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

8. Page 5, Unit 01/Specific Monitoring Requirements 4(b)(iii) – For clarification, KU is requesting the first sentence to be changed to "…the permittee shall perform *monthly* opacity observations (*prior to the installation of the PM-CEMS)* using EPA Method 9 of 40 CFR 60, Appendix A."

CAM, prior to the installation of the PM-CEMS, requires daily observations and Method 9's if triggered.

KU is requesting that the verbiage "shall perform a stack test in the following calendar quarter…before conducting the test" be changed to "shall submit in the following calendar quarter a compliance test protocol as required by Section G(a) 17 of this permit. Testing shall be conducted as per the submitted protocol to demonstrate compliance with the particulate standard while operating at representative conditions".

401 KAR 50:045, Section 2, requires a source to submit a test protocol 60 days prior to the scheduled test date. If KU is required to complete the testing in the next calendar quarter, KU must, as an example for a first quarter exceedence, submit the test protocol by April 30 and complete the test on June 29 or 30. Considering the 60-day protocol review period by KDAQ, this only gives KU 30 days to review the quarterly data, prepare the test protocol, submit the protocol, and two (2) days at the end of the quarter to complete the testing. If the state has any issues with the test protocol such that a re-submittal is necessary, the testing could not be completed in the "following" quarter.

Please also note that there is no (a)(21) in Section G.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

9. Page 6 Unit 01/Specific Monitoring Requirements/4(c )(ii) – The information displayed in the table is not the CAM plan KU submitted with the Ghent Title V permit renewal application on June 4, 2004. There has been no correspondence with the KDAQ that indicates they did not approve the submitted CAM plan. KU requests an explanation of incorporation of the CAM plan that appears in this draft permit.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

10. Page 6, Unit 01/Specific Monitoring Requirements/Table/Data Collection Frequency – KU is requesting that the frequency for the control device operating parameters be changed to a daily check of the parameters. This data will be recorded manually. A daily check of the parameters would match the frequency for the Method 9 observations. If we were unable to perform a Method 9 we could perform the daily parameter check.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

11. Page 6, Unit 01/Specific Monitoring Requirements/Table/ QA/QC - KU requests an explanation of the development of the QIP threshold. 40 CFR 64.8 suggests that a five (5) percent threshold could be used. 40 CFR 64.8 also states that the threshold may be set at a higher or lower percent. KU simply wants to understand the State's reasoning for a three (3) percent threshold which could be construed to be more stringent than Federal regulations.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

12. Page 6, Unit 01/Specific Monitoring Requirements 4(d) – KU questions the requirement to monitor the time between ignition and the time steady state operation is achieved. The cited regulation, 401 KAR 52:020, Section 10, does not contain a requirement to monitor the time between ignition and the time of achieving steady state operation. 401 KAR 50:055 requires notification of start-up (and shutdown and malfunction) events if the emissions are or may be <u>in excess of the standard</u>. It does not require the monitoring/recordkeeping/reporting of every start-up (i.e, "the time between ignition and the time of steady state operation"). KU does not currently have equipment which can record this type of data at the Ghent Generating Station and estimates that it would take six (6) months to install and program the hardware and software for this task. If it is found that this monitoring is required by regulation, KU requests permit language to allow an effective date of six (6) months after the permit is issued, so that equipment can be installed at the Ghent Generating Station to monitor the data.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

13. Page 7, Unit 01/Specific Recordkeeping Requirements 5(d) – KU questions the requirement to record the time of ignition, the time steady state operation is achieved, and the need to calculate a record the elapsed time between the two. The cited regulation, 401 KAR 52:020, Section 10, does not contain a requirement to record the time between ignition and the time of achieving steady state operation. 401 KAR 50:055 requires notification of start-up (and shutdown and malfunction) events if the emissions are or may be <u>in excess of the standard</u>. It does not require the monitoring/recordkeeping/reporting of every start-up (i.e, "the time between ignition and the time of steady state operation"). KU does not currently have equipment which can record this type of data at the Ghent Station and estimates that it would take

six (6) months to install and program the hardware and software for this task. If it is found that this monitoring is required by regulation, KU requests permit language to allow an effective date of six (6) months after the permit is issued, so that equipment can be installed at Ghent Station to monitor the data.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for changes to recordkeeping.*

14. Page 7, Unit 01/Specific Reporting Requirements 6(a)(iii) – Please add verbiage that defines "proof" as calibrations.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

15. Page 8, Unit 01/Specific Reporting Requirements 6(c)(i-v) – KU requests KDAQ to remove the language noted in 6(c)(i-v) and replace it with KDAQ's proposed language for startups.

KU does not currently have equipment which can electronically record this type of data at the Ghent Generating Station. If it is not removed from the permit, KU would request that this requirement be moved to the recordkeeping section since this data will have to be tracked manually.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

16. Page 8, Unit 01/Specific Control Equipment Operating Conditions 7a - Unit 1 has low NOx burners. They were not mentioned for Unit 1. They were noted for Unit 2 (page 15), Unit 3 (page 22), and Unit 4 (page 29).

*Division's Response: Comment acknowledged, change made.*

17. Page 9, Unit 02/Emission Limits 2(a) – The particulate emission limit should be 0.10 lb/mmBtu as noted in 40 CFR 60.42(a)(1), instead of 0.1 lb/mmBtu.

*Division's Response: Comment acknowledged, change made.*

18. Page 10, Unit 02/Emission Limits 2(d) – The nitrogen dioxide limit should be 0.70 lb/mmBtu as noted in 40 CFR 60.44(a)(3), instead of 0.7 lb/mmBtu.

*Division's Response: Comment acknowledged, change made.*

19. Page 10, Unit 02/Testing Requirements 3(c) – KU reads page 105, Section H, Specific Monitoring Requirements 4(b)(last sentence) as requiring an annual Method 9 after the PM-CEMS is installed. Does KDAQ concur? See comment below with reference to page 105.

The table on page 12 notes weekly stack observations and Method 9's, if triggered, as CAM prior to the installation of the PM-CEMS. KU suggests, changing 3(c) to: " The permittee shall determine the opacity of emissions from the stack for EPA Reference Method 9 monthly, prior to the installation of the PM-CEMS; annually, after the PM-CEMS is installed; or more frequently if requested by the Division.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

20. Page 11, Unit 02/Specific Monitoring Requirements 4(b)(i) – KU is requesting that the verbiage "shall perform a stack test in the following calendar quarter…before conducting the test" be changed to "shall submit in the following calendar quarter a compliance test protocol as required by Section G(a) 17 of this permit. Testing shall be conducted as per the submitted protocol to demonstrate compliance with the particulate standard while operating at representative conditions".

401 KAR 50:045, Section 2, requires a source to submit a test protocol 60 days prior to the scheduled test date. If KU is required to complete the testing in the next calendar quarter, KU must, as an example for a first quarter exceedence, submit the test protocol by April 30 and complete the test on June 29 or 30. Considering the 60-day protocol review period by KDAQ this only gives KU 30 days to review the quarterly data, prepare the test protocol, submit the protocol, and two (2) days at the end of the quarter to complete the testing. If the state has any issues with the test protocol such that a re-submittal is necessary, the testing could not be completed in the "following" quarter.

Please also note that there is no (a)(21) in Section G.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting. The reference to Section G(a)(21) has been corrected to G(a)(17). It is highly likely that the permittee should know before the end of a calendar quarter whether or not the COMS data is above the 5 percent threshold. However, the Division may waive testing requirements, therefore, if the permittee should be in a position that will not allow them to complete required testing within the next calendar quarter, then they should submit reasonable justification to the Division for approval.*

21. Page 12 Unit 02/Specific Monitoring Requirements/4(c )(ii) – The information displayed in the table is not the CAM plan KU submitted with the Ghent Title V permit renewal application on June 4, 2004. There has been no correspondence with the KDAQ that indicates they did not approve the submitted CAM plan. KU requests an explanation of incorporation of the CAM plan that appears in this draft permit.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

21. Page 12, Unit 02/Specific Monitoring Requirements/Table/Data Collection Frequency – KU is requesting that the frequency for the control device operating parameters be changed to a daily check of the parameters. This data will be recorded manually.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

22. Page 12, Unit 02/Specific Monitoring Requirements 4(d) – KU questions the requirement to monitor the time between ignition and the time steady state operation is achieved. The cited regulation, 401 KAR 52:020, Section 10, does not contain a requirement to monitor the time between ignition and the time of achieving steady state operation. 401 KAR 50:055 requires notification of start-up (and shutdown and malfunction) events if the emissions are or may be in excess of the standard. It does not require the monitoring/recordkeeping/reporting of every start-up (i.e, "the time between ignition and the time of steady state operation"). KU does not currently have equipment which can record this type of data at the Ghent Generating Station and estimates that it would take six (6) months to install and program the hardware and software for this task. If it is found that this monitoring is required by regulation, KU requests permit language to allow an effective date of six (6) months after the permit is issued, so that equipment can be installed at the Ghent Generating Station to monitor the data.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

23. Page 13, Unit 02/Specific Recordkeeping Requirements 5(c) – KU questions the requirement to record the time of ignition, the time steady state operation is achieved and calculate and record the elapsed time. The cited regulation, 401 KAR 52:020, Section 10, does not contain a requirement to record the time between ignition and the time of achieving steady state operation. 401 KAR 50:055 requires notification of start-up (and shutdown and malfunction) events if the emissions are or may be in excess of the standard. It does not require the monitoring/recordkeeping/reporting of every start-up (i.e, "the time between ignition and the time of steady state operation"). KU does not currently have equipment which can record this type of data at the Ghent Generating Station and estimates that it would take six (6) months to install and program the hardware and software for this task. If it is found that this monitoring is required by regulation, KU requests permit language to allow an effective date of six (6) months after the permit is issued, so that equipment can be installed at the Ghent Generating Station to monitor the data.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

24. Page 15, Unit 02/Specific Reporting Requirements 6(c) – KU requests clarification as to the frequency of the reporting of the data required in 6(c) i - viii. Is KU required to report this information in the Quarterly Excess Emission & Monitor Downtime Reports and the Semi-Annual Monitoring Reports?

*Division's Response: The Excursions are to be reported with the Quarterly Excess Emission and Monitor Downtime Reports.*

25. Page 15, Unit 02/Specific Reporting Requirements 6(d)(i-v) – KU requests KDAQ to remove the language noted in 6(d)(i-v) and replace it with KDAQ's proposed language for startups.

    KU does not currently have equipment which can electronically record this type of data at the Ghent Generating Station. If it is not removed from the permit, KU would request that this requirement be moved to the recordkeeping section since this data will have to be tracked manually.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

26. Page 16, Unit 03/Emission Limits/Control Equipment – The proposed wet limestone flue gas desulfurization (WFGD) unit to be installed between 2005 and 2010 is not noted.

*Division's Response: Comment Acknowledged, this is listed in the Equipment Description and has been added to the list of Control Equipment.*

27. Page 16, Unit 03/Emission Limits 2(a) – The particulate emission limit should be 0.10 lb/mmBtu as noted in 40 CFR 60.42(a)(1), instead of 0.1 lb/mmBtu.

*Division's Response: Comment acknowledged, change made.*

28. Page 16, Unit 03/Emission Limitations 2(b-e) – KU suggest 2(b-e) be formatted as it is on page 10 for Unit 2. This seems to be a little clearer.

*Division's Response: Formatting is the same.*

29. Page 17, Unit 03/Emission Limits 2(d) – The nitrogen dioxide limit should be 0.70 lb/mmBtu as noted in 40 CFR 60.44(a)(3), instead of 0.7 lb/mmBtu.

*Division's Response: Comment acknowledged, change made.*

30. Page 17, Unit 03/Testing Requirements 3(c) – KU reads page 105, Section H, Specific Monitoring Requirements 4(b)(last sentence) as requiring an annual Method 9 after the PM-CEMS is installed. Does KDAQ concur? See comment below with reference to page 105.

The table on page 19 notes weekly stack observations and Method 9's, if triggered, as CAM prior to the installation of the PM-CEMS. KU suggests changing 3(c) to: " The permittee shall determine the opacity of emissions from the stack for EPA Reference Method 9 monthly, prior to the installation of the PM-CEMS; annually, after the PM-CEMS is installed; or more frequently if requested by the Division.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

31. Page 18, Unit 03/Specific Monitoring Requirements 4(b)(i) – KU is requesting that the verbiage "shall perform a stack test in the following calendar quarter…before conducting the test" be changed to "shall submit in the following calendar quarter a compliance test protocol as required by Section G(a) 17 of this permit. Testing shall be conducted as per the submitted protocol to demonstrate compliance with the particulate standard while operating at representative conditions".

401 KAR 50:045, Section 2, requires a source to submit a test protocol 60 days prior to the scheduled test date. If KU is required to complete the testing in the next calendar quarter, KU must, as an example for a first quarter exceedence, submit the test protocol by April 30 and complete the test on June 29 or 30. Considering the 60-day protocol review period by KDAQ this only gives KU 30 days to review the quarterly data, prepare the test protocol, submit the protocol, and two (2) days at the end of the quarter to complete the testing. If the state has any issues with the test protocol such that a re-submittal is necessary, the testing could not be completed in the "following" quarter.

Please also note that there is no (a)(21) in Section G.

*Division's Response: See Response to Comment 20 above.*

32. Page 19 Unit 03/Specific Monitoring Requirements/4(c )(ii) – The information displayed in the table is not the CAM plan KU submitted with the Ghent Title V permit renewal application on June 4, 2004. There has been no correspondence with the KDAQ that indicates they did not approve the submitted CAM plan. KU requests an explanation of incorporation of the CAM plan that appears in this draft permit.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

33. Page 19, Unit 03/Specific Monitoring Requirements/Table/Data Collection Frequency – KU is requesting that the frequency for the control device operating parameters be changed to a daily check of the parameters. This data will be recorded manually.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

34. Page 19, Unit 03/Specific Monitoring Requirements 4(d) – KU questions the requirement to monitor the time between ignition and the time steady state operation is achieved. The cited regulation, 401 KAR 52:020, Section 10, does not contain a requirement to monitor the time between ignition and the time of achieving steady state operation. 401 KAR 50:055 requires notification of start-up (and shutdown and malfunction) events if the emissions are or may be in excess of the standard. It does not require the monitoring/recordkeeping/reporting of every start-up (i.e, "the time between ignition and the time of steady state operation"). KU does not currently have equipment which can record this type of data at the Ghent Generating Station and estimates that it would take six (6) months to install and program the hardware and software for this task. If it is found that this monitoring is required by regulation, KU requests permit language to allow an effective date of six (6) months after the permit is issued, so that equipment can be installed at the Ghent Generating Station to monitor the data.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

35. Page 20, Unit 03/Specific Recordkeeping Requirements 5(c) – KU questions the requirement to record the time of ignition, the time steady state operation is achieved and calculate and record the elapsed time. The cited regulation, 401 KAR 52:020, Section 10, does not contain a requirement to record the time between ignition and the time of achieving steady state operation. 401 KAR 50:055 requires notification of start-up (and shutdown and malfunction) events if the emissions are or may be in excess of the standard. It does not require the monitoring/recordkeeping/reporting of every start-up (i.e, "the time between ignition and the time of steady state operation"). KU does not currently have equipment which can record this type of data at the Ghent Generating Station and estimates that it would take six (6) months to install and program the hardware and software for this task. If it is found that this monitoring is required by regulation, KU requests permit language to allow an effective date of six (6) months after the permit is issued, so that equipment can be installed at the Ghent Generating Station to monitor the data.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

36. Page 22, Unit 03/Specific Reporting Requirements 6(c) – KU requests clarification as to the frequency of the reporting of the data required in 6(c) i - viii. Is KU required to report this information in the Quarterly Excess Emission & Monitor Downtime Reports and the Semi-Annual Monitoring Reports?

*Division's Response: The Excursions are to be reported with the Quarterly Excess Emission and Monitor Downtime Reports.*

37. Page 22, Unit 03/Specific Reporting Requirements 6(d)(i-v) – KU requests KDAQ to remove the language noted in 6(d)(i-v) and replace it with KDAQ's proposed language for startups.

KU does not currently have equipment which can electronically record this type of data at the Ghent Generating Station. If it is not removed from the permit, KU would request that this requirement be moved to the recordkeeping section since this data will have to be tracked manually.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

38. Page 23, Unit 04/Emission Limits/Control Equipment – The proposed wet limestone flue gas desulfurization (WFGD) unit to be installed between 2005 and 2010 is not noted.

*Division's Response: Comment Acknowledged, this is listed in the Equipment Description and has been added to the list of Control Equipment.*

39. Page 23, Unit 04/Emission Limits 2(a) – The particulate emission limit should be 0.10 lb/mmBtu as noted in 40 CFR 60.42(a)(1), instead of 0.1 lb/mmBtu.

*Division's Response: Comment acknowledged, change made.*

40. Page 24, Unit 04/Emission Limitations 2(b-e) – KU suggest 2(b-e) be formatted as it is on page 10 for Unit 2. This seems to be a little clearer.

*Division's Response: Comment acknowledged, change made.*

41. Page 24, Unit 04/Emission Limits 2(e) – The nitrogen dioxide limit should be 0.70 lb/mmBtu as noted in 40 CFR 60.44(a)(3), instead of 0.7 lb/mmBtu.

*Division's Response: Comment acknowledged, change made.*

42. Page 24, Unit 04/Testing Requirements 3(c) – KU reads page 105, Section H, Specific Monitoring Requirements 4(b)(last sentence) as requiring an annual Method 9 after the PM-CEMS is installed. Does KDAQ concur? See comment below with reference to page 105.

The table on page 26 notes weekly stack observations and Method 9's, if triggered, as CAM prior to the installation of the PM-CEMS. KU suggests changing 3© to: " The permittee shall determine the opacity of emissions from the stack for EPA Reference Method 9 monthly, prior to the installation of the PM-CEMS; annually, after the PM-CEMS is installed; or more frequently if requested by the Division.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

43. Page 25, Unit 04/Specific Monitoring Requirements 4(b)(i) – KU is requesting that the verbiage "shall perform a stack test in the following calendar quarter…before conducting the test" be changed to "shall submit in the following calendar quarter a compliance test protocol as required by Section G(a) 17 of this permit. Testing shall be conducted as per the submitted protocol to demonstrate compliance with the particulate standard while operating at representative conditions".

401 KAR 50:045, Section 2, requires a source to submit a test protocol 60 days prior to the scheduled test date. If KU is required to complete the testing in the next calendar quarter, KU must, as an example for a first quarter exceedence, submit the test protocol by April 30 and complete the test on June 29 or 30. Considering the 60-day protocol review period by KDAQ this only gives KU 30 days to review the quarterly data, prepare the test protocol, submit the protocol, and two (2) days at the end of the quarter to complete the testing. If the state has any issues with the test protocol such that a re-submittal is necessary, the testing could not be completed in the "following" quarter.

Please also note that there is no (a)(21) in Section G.

*Division's Response: See Response to Comment 20 above.*

44. Page 26 Unit 04/Specific Monitoring Requirements/4(c )(ii) – The information displayed in the table is not the CAM plan KU submitted with the Ghent Title V permit renewal application on June 4, 2004. There has been no correspondence with the KDAQ that indicates they did not approve the submitted CAM plan. KU requests an explanation of incorporation of the CAM plan that appears in this draft permit.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

45. Page 26, Unit 04/Specific Monitoring Requirements/Table/Data Collection Frequency – KU is requesting that the frequency for the control device operating parameters be changed to a daily check of the parameters. This data will be recorded manually.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

46. Page 26, Unit 04/Specific Monitoring Requirements 4(d) – KU questions the requirement to monitor the time between ignition and the time steady state operation is achieved. The cited regulation, 401 KAR 5401 KAR 52:020, Section 10, does 2:020, Section 10, does not contain a requirement to monitor the time between ignition and the time of achieving steady state operation. 401 KAR 50:055 requires notification of start-up (and shutdown and malfunction) events if the emissions are or may be in excess of the standard. It does not require the monitoring/recordkeeping/reporting of every start-up (i.e, "the time between ignition and the time of steady state operation"). KU does not currently have equipment which can record this type of data at the Ghent Generating Station and estimates that it would take six (6) months to install and program the hardware and software for this task. If it is found that this monitoring is required by regulation, KU requests permit language to allow an effective date of six (6) months after the permit is issued, so that equipment can be installed at the Ghent Generating Station to monitor the data.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

47. Page 27, Unit 04/Specific Recordkeeping Requirements 5(c) – KU questions the requirement to record the time of ignition, the time steady state operation is achieved and to calculate and record the elapsed time. The cited regulation, 401 KAR 52:020, Section 10, does not contain a requirement to record the time between ignition and the time of achieving steady state operation. 401 KAR 50:055 requires notification of start-up (and shutdown and malfunction) events if the emissions are or may be in excess of the standard. It does not require the monitoring/recordkeeping/reporting of every start-up (i.e, "the time between ignition and the time of steady state operation"). KU does not currently have equipment which can record this type of data at the Ghent Generating Station and estimates that it would take six (6) months to install and program the hardware and software for this task. If it is found that this monitoring is required by regulation, KU requests permit language to allow an effective date of six (6) months after the permit is issued, so that equipment can be installed at the Ghent Generating Station to monitor the data.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

48. Page 29, Unit 04/Specific Reporting Requirements 6(c) – KU requests clarification as to the frequency of the reporting of the data required in 6(c) i - viii. Is KU required to report this information in the Quarterly Excess Emission & Monitor Downtime Reports and the Semi-Annual Monitoring Reports?

*Division's Response: The Excursions are to be reported with the Quarterly Excess Emission and Monitor Downtime Reports.*

49. Page 29, Unit 04/Specific Reporting Requirements 6(d)(i-v) – KU requests KDAQ to remove the language noted in 6(d)(i-v) and replace it with KDAQ's proposed language for startups.

KU does not currently have equipment which can electronically record this type of data at the Ghent Generating Station. If it is not removed from the permit, KU would request that this requirement be moved to the recordkeeping section since this data will have to be tracked manually.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

50. Page 34, Unit 06/Testing Requirements 3(a) - KU requests changing the Method 9 frequency to "monthly" instead of "weekly". The existing permit requires annual Method 9's . The proposed permit continues to require Method 9's if the qualitative visual triggers the need for a Method 9.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

51. Page 34, Unit 06/Testing Requirements 3(b) - KU requests KDAQ to add verbiage which identifies the method and duration of the performance test. KU has had conversations with KDAQ regarding the appropriate performance test method for this unit. It is KU's understanding that KDAQ, under 401 KAR 50.045, Section 3, can reference alternative methods, and that a one hour Method 22, would be an acceptable test method for this unit.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

52. Page 35, Unit 06/Specific Monitoring Requirements 4(a) - KU requests adding "weekday" after "on a daily" to clarify the requirements of the first sentence.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

53. Page 35, Unit 06/Specific Monitoring Requirements/Table/ QA/QC - KU requests an explanation of the development of the QIP threshold. 40 CFR 64.8 suggests that a five (5) percent threshold could be used. 40 CFR 64.8 also states that the threshold may be set at a higher or lower percent. KU simply wants to understand the State's reasoning for a three (3) percent threshold which could be construed to be more stringent than Federal regulations.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

54. Page 36, Unit 06/Specific Reporting Requirements 6(a)(v-vii) – KU requests the removal of 6 (a)(v-vii). There is no monitoring equipment. The monitoring Method is qualitative visuals/Method 9's.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

55. Page 41, Unit 08-02/Testing Requirements 3(a) - KU requests the removal of 3a and adding verbiage to 3c which identifies the method and duration of the performance test. KU has had conversations with KDAQ and believes that the appropriate test method for this unit is a one hour Method 22. It is KU's understanding that KDAQ, under 401 KAR 50.045, Section 3, can reference alternative methods.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

56. Page 42, Unit 08-02/Specific Monitoring Requirements 4(a) - KU requests adding "weekday" after "on a daily", as noted for Unit 11, to clarify the requirements of the first sentence.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

57. Page 42, Unit 08-02/Specific Monitoring Requirements/4(b )(ii) – The information displayed in the table is not the CAM plan KU submitted with the Ghent Title V permit renewal application on June 4, 2004. There has been no correspondence with the KDAQ that indicates they did not approve the submitted CAM plan. KU requests an explanation of incorporation of the CAM plan that appears in this draft permit.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

58. Page 42, Unit 08-02/Specific Monitoring Requirements/Table/ QA/QC - KU requests an explanation of the development of the QIP threshold. 40 CFR 64.8 suggests that a five (5) percent threshold could be used. 40 CFR 64.8 also states that the threshold may be set at a higher or lower percent. KU simply wants to understand the State's reasoning for a three (3) percent threshold which could be construed to be more stringent than Federal regulations.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

59. Page 43, Unit 08-02/Specific Reporting Requirements 6(a)(v-vii) – KU requests the removal of 6 (a)(v-vii). There is no monitoring equipment. The monitoring Method is qualitative visuals/Method 9's.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

60. Page 46, Unit 09-02/Testing Requirements 3(a) - KU requests the removal of 3a and adding verbiage to 3c which identifies the method and duration of the performance test. KU has had conversations with KDAQ and believes that the appropriate test method for this unit is a one hour Method 22. It is KU's understanding that KDAQ, under 401 KAR 50.045, Section 3, can reference alternative methods.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

61. Page 47, Unit 09-02/Specific Monitoring Requirements 4(a) - KU requests adding "weekday" after "on a daily", as noted for Unit 11, to clarify the requirements of the first sentence.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

62. Page 47, Unit 09-02/Specific Monitoring Requirements/4(b )(ii) – The information displayed in the table is not the CAM plan KU submitted with the Ghent Title V permit renewal application on June 4, 2004. There has been no correspondence with the KDAQ that indicates they did not approve the submitted CAM plan. KU requests an explanation of incorporation of the CAM plan that appears in this draft permit.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

63 Page 47, Unit 09-02/Specific Monitoring Requirements/Table/ QA/QC - KU requests an explanation of the development of the QIP threshold. 40 CFR 64.8 suggests that a five (5) percent threshold could be used. 40 CFR 64.8 also states that the threshold may be set at a higher or lower percent. KU simply wants to understand the State's reasoning for a three (3) percent threshold which could be construed to be more stringent than Federal regulations.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

64. Page 48, Unit 09-02/Specific Reporting Requirements 6(a)(v-vii) – KU requests the removal of 6 (a)(v-vii). There is no monitoring equipment. The monitoring Method is qualitative visuals/Method 9's.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

65. Page 49, Unit 10-01/Testing Requirements 4 – The Method 9 frequency is not noted. KU requests that "annual" be inserted to identify the Method 9 frequency.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

66. Page 51, Unit 10-02/Testing Requirements 3(a) - KU requests the removal of 3a and adding verbiage to 3c which identifies the method and duration of the performance test. KU has had conversations with KDAQ and believes that the appropriate test method for this unit is a one hour Method 22. It is KU's understanding that KDAQ, under 401 KAR 50.045, Section 3, can reference alternative methods.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

67. Page 51, Unit 10-02/Testing Requirements 3d – Typo, 3d should be 3b.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

68. Page 52, Unit 10-02/Specific Monitoring Requirements 4(a) - KU requests adding "weekday" after "on a daily", as noted for Unit 11, to clarify the requirements of the first sentence.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

69. Page 52, Unit 10-02/Specific Monitoring Requirements/4(b )(ii) – The information displayed in the table is not the CAM plan KU submitted with the Ghent Title V permit renewal application on June 4, 2004. There has been no correspondence with the KDAQ that indicates they did not approve the submitted CAM plan. KU requests an explanation of incorporation of the CAM plan that appears in this draft permit.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

70. Page 52, Unit 10-02/Specific Monitoring Requirements/Table/ QA/QC - KU requests an explanation of the development of the QIP threshold. 40 CFR 64.8 suggests that a five (5) percent threshold could be used. 40 CFR 64.8 also states that the threshold may be set at a higher or lower percent. KU simply wants to understand the State's reasoning for a three (3) percent threshold which could be construed to be more stringent than Federal regulations.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

71. Page 53, Unit 10-02/Specific Reporting Requirements 6(a)(v-vii) – KU requests the removal of 6 (a)(v-vii). There is no monitoring equipment. The monitoring Method is qualitative visuals/Method 9's.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

72. Page 54, Unit 11/Testing Requirements 3b – Typo, the first 3b should be 3a.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

73. Page 54, Unit 11/Testing Requirements 3(a) - KU requests changing the Method 9 frequency to "monthly" instead of "weekly". The existing permit requires annual Method 9's . The proposed permit continues to require Method 9's if the qualitative visual triggers a Method 9.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

74. Page 54, Unit 11/Testing Requirements 3(b) - KU requests adding verbiage to 3b which identifies the method and duration of the performance test. KU has had conversations with KDAQ and believes that the appropriate test method for this unit is a one hour Method 22. It is KU's understanding that KDAQ, under 401 KAR 50.045, Section 3, can reference alternative methods.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

75. Page 55, Unit 11/Specific Monitoring Requirements/4(b )(ii) – The information displayed in the table is not the CAM plan KU submitted with the Ghent Title V permit renewal application on June 4, 2004. There has been no correspondence with the KDAQ that indicates they did not approve the submitted CAM plan. KU requests an explanation of incorporation of the CAM plan that appears in this draft permit.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

76. Page 55, Unit 11/Specific Monitoring Requirements/Table/ QA/QC - KU requests an explanation of the development of the QIP threshold. 40 CFR 64.8 suggests that a five (5) percent threshold could be used. 40 CFR 64.8 also states that the threshold may be set at a higher or lower percent. KU simply wants to understand the State's reasoning for a three (3) percent threshold which could be construed to be more stringent than Federal regulations.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

77. Page 56, Unit 11/Specific Reporting Requirements 6(a)(v-vii) – KU requests the removal of 6 (a)(v-vii). There is no monitoring equipment. The monitoring Method is qualitative visuals/Method 9's.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

78. Page 57, Unit 12/Testing Requirements 3(b) - KU requests adding verbiage to 3b which identifies the method and duration of the performance test. KU has had conversations with KDAQ and believes that the appropriate test method for this unit is a one hour Method 22. It is KU's understanding that KDAQ, under 401 KAR 50.045, Section 3, can reference alternative methods.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

79. Page 58, Unit 12/Specific Monitoring Requirements/4(b )(ii) – The information displayed in the table is not the CAM plan KU submitted with the Ghent Title V permit renewal application on June 4, 2004. There has been no correspondence with the KDAQ that indicates they did not approve the submitted CAM plan. KU requests an explanation of incorporation of the CAM plan that appears in this draft permit.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

80. Page 58, Unit 12/Specific Monitoring Requirements/Table/ QA/QC - KU requests an explanation of the development of the QIP threshold. 40 CFR 64.8 suggests that a five (5) percent threshold could be used. 40 CFR 64.8 also states that the threshold may be set at a higher or lower percent. KU simply wants to understand the State's reasoning for a three (3) percent threshold which could be construed to be more stringent than Federal regulations.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

81 Page 59, Unit 12/Specific Reporting Requirements 6(a)(v-vii) – KU requests the removal of 6 (a)(v-vii). There is no monitoring equipment. The monitoring Method is qualitative visuals/Method 9's.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

82. Page 60, Unit 13/Testing Requirements 3(b) - KU requests adding verbiage to 3b which identifies the method and duration of the performance test. KU has had conversations with KDAQ and believes that the appropriate test method for this unit is a one hour Method 22. It is KU's understanding that KDAQ, under 401 KAR 50.045, Section 3, can reference alternative methods.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

83. Page 61, Unit 13/Specific Monitoring Requirements/4(b )(ii) – The information displayed in the table is not the CAM plan KU submitted with the Ghent Title V permit renewal application on June 4, 2004. There has been no correspondence with the KDAQ that indicates they did not approve the submitted CAM plan. KU requests an explanation of incorporation of the CAM plan that appears in this draft permit.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

84. Page 61, Unit 13/Specific Monitoring Requirements/Table/ QA/QC - KU requests an explanation of the development of the QIP threshold. 40 CFR 64.8 suggests that a five (5) percent threshold could be used. 40 CFR 64.8 also states that the threshold may be set at a higher or lower percent. KU simply wants to understand the State's reasoning for a three (3) percent threshold which could be construed to be more stringent than Federal regulations.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

85. Page 62, Unit 13/Specific Reporting Requirements 6(a)(v-vii) – KU requests the removal of 6 (a)(v-vii). There is no monitoring equipment. The monitoring Method is qualitative visuals/Method 9's.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

86. Page 63, Unit 14/Testing Requirements 3(b) - KU requests adding verbiage to 3b which identifies the method and duration of the performance test. KU has had conversations with KDAQ and believes that the appropriate test method for this unit is a one hour Method 22. It is KU's understanding that KDAQ, under 401 KAR 50.045, Section 3, can reference alternative methods.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

87. Page 64, Unit 14/Specific Monitoring Requirements/4(b )(ii) – The information displayed in the table is not the CAM plan KU submitted with the Ghent Title V permit renewal application on June 4, 2004. There has been no correspondence with the KDAQ that indicates they did not approve the submitted CAM plan. KU requests an explanation of incorporation of the CAM plan that appears in this draft permit.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

88. Page 64, Unit 14/Specific Monitoring Requirements/Table/ QA/QC - KU requests an explanation of the development of the QIP threshold. 40 CFR 64.8 suggests that a five (5) percent threshold could be used. 40 CFR 64.8 also states that the threshold may be set at a higher or lower percent. KU simply wants to understand the State's reasoning for a three (3) percent threshold which could be construed to be more stringent than Federal regulations.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

89. Page 65, Unit 14/Specific Reporting Requirements 6(a)(v-vii) – KU requests the removal of 6 (a)(v-vii). There is no monitoring equipment. The monitoring Method is qualitative visuals/Method 9's.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

90. Page 66, Unit 15/Testing Requirements 3(a) - KU requests changing the Method 9 frequency to "monthly" instead of "weekly". The existing permit requires annual Method 9's . The proposed permit requires Method 9's if the qualitative visual triggers a Method 9.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

91. Page 66, Unit 15/Testing Requirements 3(b) - KU requests removal of the reference to Method 5 and Method 17. KU has had conversations with KDAQ and believes that the appropriate test method for this unit is a one hour Method 22. It is KU's understanding that KDAQ, under 401 KAR 50.045, Section 3, can reference alternative methods.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

92. Page 68, Unit 16/Testing Requirements 3 - KU requests changing the Method 9 frequency to "monthly" instead of "weekly". The existing permit requires annual Method 9's . The proposed permit continues to require Method 9's if the qualitative visual triggers a Method 9.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

93. Page 69, Unit 16/Specific Reporting Requirements 6 – KU requests removal of the performance test language. Method 9's are required. Performance testing in not required for this unit.

*Division's Response: See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

94. Page 73, Unit 25/Testing Requirements 3 – Performance testing is not noted under the testing requirements. Please confirm that performance testing is not required for this unit. If it is required, please note the method and frequency under the testing requirements.

*Division's Response: EU 25 is not required to conduct an initial compliance demonstration or subsequent performance testing. See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

95. Page 75, Unit 26/Description – Please change the conveyor names from "LS-1 and LS-2" to "L2 and L3."

*Division's Response: Comment acknowledged, changes made.*

96. Page 75, Unit 26/Testing Requirements 3 – Performance testing is not noted under the testing requirements. Please confirm that performance testing is not required for this unit. If it is required, please note the method and frequency under the testing requirements.

*Division's Response: A statement was added to Section G(d) which had been inadvertently left out saying "Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission points EU 25, EU 26, EU 27, EU 28, EU 29, EU 30, EU 31, EU 32, and EU 33 in accordance with the terms and conditions of this permit." EU 26 as an NSPS source is required to complete an initial compliance demonstration per Section G(d)(5)and(7). See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

97. Page 76, Unit 26/Specific Reporting Requirements 6 – KU requests removal of the word "performance" if perform testing is not required for this unit.

*Division's Response: See response to comment 96 and the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

98. Page 77, Unit 27/Testing Requirements 3 – Performance testing is not noted under the testing requirements. Please confirm that performance testing is not required for this unit. If it is required, please note the method and frequency under the testing requirements.

*Division's Response: EU 27 is not required to conduct an initial compliance demonstration or subsequent performance testing. See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

99. Page 79, Unit 28/Description – Please change the conveyor names from "LS-3 and LS-4" to "L4 - L7." L4 and L5 are underground. These four conveyors were identified in the permit application as emission points LH8 and LH9. Two conveyors are underground (L4 & L5) and L6 & L7 (L3&L4 in the application) are nearly totally enclosed. The permit Maximum Operating Rate for these conveyors should also be revised. The average transfer rate will remain in the 70 – 100 tons/hours range. However, the maximum rated capacity for these conveyors is 225 TPH for L4 & L5 and 225 TPH for L6 &L7.

*Division's Response: Comments acknowledged, changes made.*

100. Page 79, Unit 28/Testing Requirements 3 – Performance testing is not noted under the testing requirements. Please confirm that performance testing is not required for this unit. If it is required, please note the method and frequency under the testing requirements.

*Division's Response: EU 28 as an NSPS source is required to complete an initial compliance demonstration per Section G(d)(5)and(7). See response to Comment 96 above and the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

101. Page 80, Unit 28/Specific Reporting Requirements 6 – KU requests removal of the word "performance" if performance testing is not required for this unit.

*Division's Response: See response to Comment 100 and the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

102. Page 81, Unit 29/Testing Requirements 3 – The Method 22 frequency is not noted. KU requests that the frequency be an annual Method 22.

*Division's Response: EU 29 will be required to complete an initial compliance demonstration per Section G(d)(5)and(7). See response to Comment 96 above and the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

103. Page 81, Unit 29/Testing Requirements 3 – Performance testing is not noted under the testing requirements. Please confirm that performance testing is not required for this unit. If it is required, please note the method and frequency under the testing requirements.

*Division's Response: See response to Comment 102 above and the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

104. Page 82, Unit 29/Specific Reporting Requirements 6 - KU requests removal of the word "performance" if performance testing is not required for this unit.

*Division's Response: See response to Comment 102 above and the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

105. Page 83, Unit 30/Testing Requirements 3 – Performance testing is not noted under the testing requirements. Please confirm that performance testing is not required for this unit. If it is required, please note the method and frequency under the testing requirements.

*Division's Response: EU 30 as an NSPS source is required to complete an initial compliance demonstration per Section G(d)(5)and(7). See response to Comment 96 above and the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

106. Page 84, Unit 30/Specific Reporting Requirements 6 - KU requests removal of the word "performance" if performance testing is not required for this unit.

*Division's Response: See response to Comment 105 above and the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

107. Page 85, Unit 31/Testing Requirements 3 – The Method 22 frequency is not noted. KU requests that the frequency be noted as an annual Method 22.

*Division's Response: See Response to Comment 108 below and the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

108. Page 85, Unit 31/Testing Requirements 3 – Performance testing is not noted under the testing requirements. Please confirm that performance testing is not required for this unit. If it is required, please note the method and frequency under the testing requirements.

*Division's Response: EU 31 as an NSPS source is required to complete an initial compliance demonstration per Section G(d)(5)and(7). Method 9 shall be used for the conveyor belts leaving the Dewatering Building; Method 22 shall be used for the Dewatering Building. See response to Comment 96 above and the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

109. Page 86, Unit 31/Specific Reporting Requirements 6 – KU requests removal of the word "performance" if performance testing is not required for this unit.

*Division's Response: See response to Comment 108 above and See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

110. Page 87, Unit 32/Testing Requirements 3 – Performance testing is not noted under the testing requirements. Please confirm that performance testing is not required for this unit. If it is required, please note the method and frequency under the testing requirements.

*Division's Response: EU 32 is not required to conduct an initial compliance demonstration or subsequent performance testing. See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

111. Page 89, Unit 33/Testing Requirements 3 – Performance testing is not noted under the testing requirements. Please confirm that performance testing is not required for this unit. If it is required, please note the method and frequency under the testing requirements.

*Division's Response: EU 33 as an NSPS source is required to complete an initial compliance demonstration per Section G(d)(5)and(7). See response to Comment 96 above and the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

112. Page 90, Unit 33/Specific Reporting Requirements 6 – KU requests removal of the word "performance" if performance testing is not required for this unit.

*Division's Response: See Response to Comment 111 above and the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

113. Page 100, Section G, General Provisions - The permit, Section B, 4(b)(i) &(iii) reference Section G(a)(21), G(a)(21) does not exist.

*Division's Response: The correct reference corrected throughout the permit is G(a)(17).*

114. Page 105, Section H, Testing Requirements 3: KU reads page 105, Section H, Specific Monitoring Requirements 4(b)(last sentence) as requiring an annual Method 9 after the PM-CEMS are installed and suggests changing "See Section B" to "The permittee shall determine the opacity of emissions from the stack by EPA Reference Method 9 annually, or more frequently if requested by the Division. Does KDAQ concur?

*Division's Response: Section H has been removed from the permit and incorporated into Section B on a unit specific basis. See the Draft Permit V-05-043 Revision 1 for corrections and changes to testing, monitoring, monitoring, recordkeeping, and reporting.*

**CREDIBLE EVIDENCE:**

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.